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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/734,686 | 12/12/2003 | Young Hwa Kim | 78693-344308 | 1211 |
| 25764 7590 04/08/2008 FAEGRE & BENSON LLP PATENT DOCKETING 2200 WELLS FARGO CENTER 90 SOUTH SEVENTH STREET MINNEAPOLIS, MN 55402-3901 | | | | |
| EXAMINER | | | | |
| PIZIALI, ANDREW T | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/734,686

Applicant(s)

KIM ET AL.

Examiner

Andrew T. Piziali

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13, 15, 20, 24-36 and 43-46 is/are pending in the application.
4a) Of the above claim(s) 13, 24, 25 and 45 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-11, 15, 20, 26-36, 43, 44 and 46 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Continuation of Attachment(s) 3).

Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date : 2/8/07, 10/15/07, 10/26/07, 1/31/08.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 1/2/2007 has been entered. In addition, the declaration filed 6/13/2007 has been entered. It is noted that claim 11 was examined by the previous examiner while claim 5 was withdrawn. Since claim 11 is dependent on claim 5, the current examiner has rejoined claim 5.

Response to Supplemental Amendment

2. The supplemental amendment filed on 1/31/2008 has not been entered. Firstly, a supplemental reply is not entered as a matter of right except as provided in MPEP 714.02. Secondly, if a supplemental reply is non-compliant the supplemental reply will not be entered (MPEP 714.03(a)). The supplemental reply filed 1/31/2008 failed to present arguments directed to the newly amended claims or the newly presented claims. In order to be entitled to consideration a reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references (MPEP 714.02).

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 11, 15, 26, 27, 29-36 and 46 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 96/07509 to Hoglund.

Hoglund discloses an abrasion and wear resistant fabric assembly comprising a flexible substrate having a top surface and a plurality of non-overlapping plates comprising a polymeric resin arranged in a repeating pattern affixed to and permeating the top surface of the substrate, wherein the plates have a substantially uniform thickness of 0.1 to 2 mm (4 to 78 mils) and define a plurality of continuous gaps having an approximately uniform width between adjacent plates (see entire document including page 3, lines 18-27, the paragraph bridging pages 7 and 8, page 12, lines 9-21, and the Figures).

Regarding the claimed printing step, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter.

Regarding claims 3 and 31, the width of each gap is approximately 5 to 40 mils and the substrate comprises a woven substrate (abstract, page 12, lines 9-21, and the Figures). In addition, Hoglund discloses that the positions of the plates may be varied (page 8, lines 5-13). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the gap width because it is understood by one of ordinary skill in the art that the gap width determine properties such as permeability and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 4, the plates have a maximum dimension in the range of 20 to 200 mils (page 12, lines 9-21, and the Figures). In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the plate dimensions because it is understood by one of ordinary skill in the art that the plate dimension determines properties such as grinding effect and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 5, the plates are identical (Figures).

Regarding claim 6, the plates each have a diameter in the range of 20 to 100 mils (page 12, lines 9-21, and the Figures). In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the plate diameter because it is understood by one of ordinary skill in the art that the plate diameter determines properties such as grinding effect and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 11, the plates have a curved shape (Figures).

Regarding claim 15, the polymeric resin is epoxy (page 8, lines 3-5).

Regarding claims 26 and 27, a compressible layer may be laminated to the woven fabric (page 5, lines 30-34 and page 9, lines 23-31).

Regarding claims 29, 30 and 32-36, considering that the fabric assembly taught by Høglund is identical to the claimed fabric assembly, it inherently possesses the claimed characteristics.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claim 46, the epoxy resin plates comprise a plurality of abrasive particles such as aluminum oxide or silicon carbide (paragraph bridging pages 7 and 8).

Claim Rejections - 35 USC § 103

6. Claims 7-10 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/07509 to Hoglund as applied to claims 1-6, 11, 15, 26, 27, 29-36 and 46 above, and further in view of USPN 3,711,889 to Jennings.

Hoglund discloses that the plates may be applied to the surface of the cloth that does not comprise any projecting parts (paragraph bridging pages 9 and 10), but Hoglund does not appear to specifically mention polygon shapes. Jennings discloses that it is known in the scrubbing/grinding fabric art to use equilateral hexagon shapes as scrubbing agglomerates (see entire document including column 1, lines 5-19 and the paragraph bridging columns 1 and 2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the agglomerates in any suitable polygon shape, such as hexagons or the like,

because it is within the general skill of a worker in the art to select a known shape on the basis of its suitability and desired characteristics such as appearance.

Regarding claims 9 and 10, Hoglund discloses that the plates each have a diameter in the range of 20 to 80 mils (page 12, lines 9-21, and the Figures). In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the plate diameter because it is understood by one of ordinary skill in the art that the plate diameter determines properties such as grinding effect and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

7. Claims 20, 29-36 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/07509 to Hoglund as applied to claims 1-6, 11, 15, 26, 27, 29-36 and 46 above, and further in view of USPN 5,310,590 to Tochacek.

Regarding claims 20 and 43, Hoglund does not appear to disclose the fabric layer material, but Tochacek discloses that abrasive scrubbing fabrics may be made of cotton, polyester, or a combination thereof (see entire document including column 16, lines 15-18). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use cotton or cotton/polyester fabrics in the scrubbing article, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.

Regarding claims 29-36, considering that the fabric assembly taught by the prior art is identical to the claimed fabric assembly, it inherently possesses the claimed characteristics.

8. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/07509 to Hoglund as applied to claims 1-6, 11, 15, 26, 27, 29-36 and 46 above, and further in view of USPN 4,315,379 to Lang.

Hoglund discloses that a layer of material may be added to the fabric assembly to obtain a better grip (page 5, lines 30 and 31), but Hoglund does not appear to specifically mention neoprene. Lang discloses that it is known in the grip art to add a layer of neoprene to provide effective gripping (column 1, lines 15-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the additional layer from any suitable material, such as neoprene, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Response to Arguments

9. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/

Primary Examiner, Art Unit 1794